

## SHALLOW METALLIC S-SEAL

### ABSTRACT OF THE DISCLOSURE

5 A metallic seal is provided that concentrates the available load over a narrow band to produce a sealing dam over a sufficient width to minimize leakage on a molecular level. The metallic seal has a first annular end section with has a first annular sealing surface, a second annular end section with a second annular sealing surface and an annular center section extending between the first and second annular end sections to form a ring having a central passageway with a center longitudinal axis. The third annular section is frustoconical tube with the first and second annular end sections being contiguously arranged at opposite ends of the annular center section such that sealing loads applied substantially perpendicularly on the first and second annular sealing surfaces primarily deform due to torsional stress of the metallic seal.

10